

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**

Declaration  
Submitted  
with Initial  
Filing

OR

Declaration  
Submitted after Initial  
Filing (surcharge  
(37 CFR 1.16 (e))  
required)

<b>Attorney Docket Number</b>	HES 2000-IP-001952
<b>First Named Inventor</b>	B. Raghava Reddy
<b>COMPLETE IF KNOWN</b>	
<b>Application Number</b>	
<b>Filing Date</b>	
<b>Art Unit</b>	
<b>Examiner Name</b>	

As the below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original and first inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**High Temperature Viscosifying And Fluid Loss Controlling Additives For Well Cements,  
Well Cement Compositions and Methods**

*(Title of the Invention)*

the specification of which

is attached hereto

OR

was filed on (MM/DD/YYYY)   as United States Application Number or PCT International

Application Number   and was amended on (MM/DD/YYYY)   (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?
			<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

[Page 1 of 2]

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

## DECLARATION — Utility or Design Patent Application

Direct all correspondence to:  Customer Number \_\_\_\_\_ OR  Correspondence address below  
 or Bar Code Label \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

ZIP \_\_\_\_\_

Country \_\_\_\_\_

Telephone \_\_\_\_\_

Fax \_\_\_\_\_

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**NAME OF SOLE OR FIRST INVENTOR :**  A petition has been filed for this unsigned inventor

Given Name	B. Raghava	Family Name	Reddy
(first and middle [if any])			

Inventor's Signature	<i>B. Raghava Reddy</i>	Date	2/6/02
----------------------	-------------------------	------	--------

Duncan	OK	73533	India
Residence: City	State	Country	Citizenship

Mailing Address  
2013 Waverly

Duncan	OK	73533	U.S.
City	State	ZIP	Country

**NAME OF SECOND INVENTOR:**  A petition has been filed for this unsigned inventor

Given Name	Wendell D.	Family Name	Riley
(first and middle [if any])			

Inventor's Signature	<i>Wendell D. Riley</i>	Date	2-6-02
----------------------	-------------------------	------	--------

Marlow	OK	U.S.	U.S.
Residence: City	State	Country	Citizenship

Mailing Address HC 64 Box 144

Marlow	OK	73055	U.S.
City	State	ZIP	Country

Additional inventors are being named on the \_\_\_\_\_ supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY  
and  
CORRESPONDENCE ADDRESS  
INDICATION FORM**

Application Number	
Filing Date	
First Named Inventor	BESRâghâvâPREddy 521111
Title	High Temperature ...
Art Unit	
Examiner Name	
Attorney Docket Number	HES 2000-IP-001952U1D1

I hereby appoint:

 Practitioners associated with the Customer Number: 

OR

 Practitioner(s) named below:

Name	Registration Number
see attached	

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

 The address associated with the above-mentioned Customer Number: 

OR

 The address associated with Customer Number: 

OR

<input type="checkbox"/>	Firm or Individual Name			
Address				
Address				
City		State		Zip
Country				
Telephone		Fax		

I am the:

 Applicant/Inventor. Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)**SIGNATURE of Applicant or Assignee of Record**

Name	Craig W. Roddy		
Signature	<i>Craig W. Roddy</i>		
Date	11-12-2003	Telephone	580-251-3012

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

 \*Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**REGISTERED PRACTITIONER  
INFORMATION  
(Supplemental Sheet)**

Name	Registration Number	Name	Registration Number
Halliburton Energy Services, Inc. Practitioners		McAfee & Taft Practitioners	
William E. Shull	29,438	C. Clark Dougherty, Jr.	24,208
William M. Imwalle	35,904	Clifford C. Dougherty, III	31,607
Robert A. Kent	28,626	Jean L. Pinkston	45,014
Craig W. Roddy	36,256	William D. Hall	35,535
John W. Wustenberg	35,415	Barbara Yuill	54,562

**Notice:** This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments or the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20591. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20591.

Declaration — Registered Practitioner Information (Supplemental Sheet) (PTO/SB/02C)(1-14)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: B. Raghava Reddy et al.Application No./Patent No.: unknown Filed/Issue Date: concurrently herewithEntitled: High Temperature Viscosifying and Fluid Loss Controlling Additives ...Halliburton Energy Services, Inc., a corporation

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1.  the assignee of the entire right, title, and interest; or2.  an assignee of less than the entire right, title and interest.The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:A.  An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 12603, Frame 0186, or for which a copy thereof is attached.**OR**B.  A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached. Additional documents in the chain of title are listed on a supplemental sheet. Copies of assignments or other documents in the chain of title are attached.[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document)  
must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be  
recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

11-12-2003

Date

580-251-3012

Telephone number

Craig W. RoddyCraig W. Roddy

Typed or printed name

Signature

Senior Counsel

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



UNITED STATES  
PATENT AND  
TRADEMARK OFFICE

APRIL 29, 2002

HALLIBURTON ENERGY SERVICES  
CRAIG W. RODDY  
2600 SOUTH SECOND STREET  
DUNCAN, OK 73536-0440

PTAS RECEIVED

Chief Financial Officer and Chief Administrative Officer  
Washington, DC 20231  
[www.uspto.gov](http://www.uspto.gov)

APR 29 2002



CRAIG W. RODDY

\*101995080A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 02/08/2002

REEL/FRAME: 012603/0186  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
REDDY, B. RAGHAVA

DOC DATE: 02/06/2002

ASSIGNOR:  
RILEY, WENDELL D.

DOC DATE: 02/06/2002

ASSIGNEE:  
HALLIBURTON ENERGY SERVICES, INC.  
10200 BELLAIRE BOULEVARD  
HOUSTON, TEXAS 77072

SERIAL NUMBER: 10071076  
PATENT NUMBER:

FILING DATE: 02/08/2002  
ISSUE DATE:

MAURICE CARTER, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

02-27-2002



101995080

Tab settings → → →

02/08/02  
RECORDATION FORM COVER SHEET  
**PATENTS ONLY**

U.S. DEPARTMENT OF COMMERCE  
U.S. Patent and Trademark Office

10/07/1076  
10/07/1076  
10/07/1076

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

B. Raghava Reddy  
Wendell D. Riley

Additional name(s) of conveying party(ies) attached?  Yes  No

## 3. Nature of conveyance:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Assignment | <input type="checkbox"/> Merger         |
| <input type="checkbox"/> Security Agreement    | <input type="checkbox"/> Change of Name |
| <input type="checkbox"/> Other                 |   |

Execution Date: February 6, 2002

## 2. Name and address of receiving party(ies)

Name: Halliburton Energy Services, Inc.

Internal Address: \_\_\_\_\_

Street Address: 10200 Bellaire Boulevard

City: Houston State: TX Zip: 77072

Additional name(s) & address(es) attached?  Yes  No

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: 02/06/02

A. Patent Application No.(s) \_\_\_\_\_

B. Patent No.(s) \_\_\_\_\_

16071076

Additional numbers attached?  Yes  No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Craig W. Roddy

Internal Address: Halliburton Energy Services

Street Address: 2600 South Second Street

City: Duncan State: OK Zip: 73536-0440

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41).....\$ 40.00

Enclosed

Authorized to be charged to deposit account

## 8. Deposit account number:

08-0300

## 9. Signature.

Craig W. Roddy

Name of Person Signing

Craig W. Roddy  
Signature

2-7-02

Date

Total number of pages including cover sheet, attachments, and documents: 3

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

02/26/2002 ARRIVED 0000004 080300 10071076

01 FC#581

40.00 CH

## ASSIGNMENT

Whereas, I, B. Raghava Reddy, of Stephens County, Duncan, Oklahoma and Wendell D. Riley, of Stephens County, Marlow, Oklahoma have invented HIGH TEMPERATURE VISCOSIFYING AND FLUID LOSS CONTROLLING ADDITIVES FOR WELL CEMENTS, WELL CEMENT COMPOSITIONS AND METHODS for which I have made application for Letters Patent of the United States; and

Whereas, HALLIBURTON ENERGY SERVICES, INC., a Delaware Corporation, having a place of business at 10200 Bellaire Boulevard, Houston, Texas 77072 is desirous of acquiring an interest therein;

NOW, THEREFORE, in consideration of the sum of ten dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, by these presents do sell, assign and transfer and convey unto HALLIBURTON ENERGY SERVICES, INC., its successors and assigns, the full and exclusive right, for the United States of America and its territorial possessions and for any and all foreign countries, in and to the said invention, described in the Patent Application first executed on February 6, 2002, submitted concurrently herewith, and any divisional, continuing or reissue application based on the present application preparatory to obtaining Letters Patent of the United States therefor; said invention, application and any and all Letters Patent issuing therefor to be held and enjoyed by HALLIBURTON ENERGY SERVICES, INC., for its own use and behoof, and for its legal representatives, successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me and had this assignment and sale not been made.

And I do further agree to sign all papers, make all rightful oaths and do all requisite acts for the filing of any disclaimer or for the filing and assignment of any divisional, continuing or reissue application or applications for patent based on the present application, as well as for any other U.S. or foreign application for patent which relates to the said invention.

And I do further agree to communicate to HALLIBURTON ENERGY SERVICES, INC., its successors, assign or other legal representatives, such facts relating to the invention disclosed in the present application or Letters Patent issuing thereon as may be known to me, and to testify as to such facts in any interference or other litigation.

Executed this 6th day of February, 2002, at Duncan, Stephens County, Oklahoma U.S.A.

B. Raghava Reddy  
B. Ragahava Reddy

State of Oklahoma      )  
                            )  
                            ) ss  
County of Stephens     )

Before me personally appeared said B. Raghava Reddy and acknowledged the foregoing instrument to be his free act and deed this 6th day of February, 2002.

Seal

Sheila Gibbs

(Notary Public)

My Commission Expires: September 13, 2004

Executed this 6th day of February, 2002, at Duncan, Stephens County, Oklahoma U.S.A.

Wendell D. Riley  
Wendell D. Riley

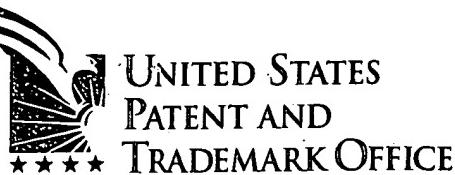
State of Oklahoma      )  
                            )  
                            ) ss  
County of Stephens     )

Before me personally appeared said Wendell D. Riley and acknowledged the foregoing instrument to be his free act and deed this 6th day of February, 2002.

Seal

Sheila Gibbs  
(Notary Public)

My Commission Expires: September 13, 2004



UNITED STATES  
PATENT AND  
TRADEMARK OFFICE

APRIL 29, 2002

HALLIBURTON ENERGY SERVICES  
CRAIG W. RODDY  
2600 SOUTH SECOND STREET  
DUNCAN, OK 73536-0440

PTAB RECEIVED

Chief Financial Officer and Chief Administrative Officer  
Washington, DC 20231  
[www.uspto.gov](http://www.uspto.gov)

APR 29 2002



CRAIG W. RODDY

\*101995080A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 02/08/2002

REEL/FRAME: 012603/0186  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
REDDY, B. RAGHAVA

DOC DATE: 02/06/2002

ASSIGNOR:  
RILEY, WENDELL D.

DOC DATE: 02/06/2002

ASSIGNEE:  
HALLIBURTON ENERGY SERVICES, INC.  
10200 BELLAIRE BOULEVARD  
HOUSTON, TEXAS 77072

SERIAL NUMBER: 10071076  
PATENT NUMBER:

FILING DATE: 02/08/2002  
ISSUE DATE:

MAURICE CARTER, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

02-27-2002



101995080

Tab settings → → →

02/08/02  
RECORDATION FORM COVER SHEET  
**PATENTS ONLY**

U.S. DEPARTMENT OF COMMERCE  
U.S. Patent and Trademark Office

S-1097 U.S. PTO  
10/07/076

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

B. Raghava Reddy  
Wendell D. Riley

Additional name(s) of conveying party(ies) attached?  Yes  No

## 3. Nature of conveyance:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Assignment | <input type="checkbox"/> Merger         |
| <input type="checkbox"/> Security Agreement    | <input type="checkbox"/> Change of Name |
| <input type="checkbox"/> Other                 |   |

Execution Date: February 6, 2002

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: 02/06/02

A. Patent Application No.(s)

B. Patent No.(s)

16|07|076

Additional numbers attached?  Yes  No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Craig W. Roddy

Internal Address: Halliburton Energy Services

Street Address: 2600 South Second Street

City: Duncan State: OK Zip: 73536-0440

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41).....\$ 40.00

Enclosed

Authorized to be charged to deposit account

## 8. Deposit account number:

08-0300

DO NOT USE THIS SPACE

## 9. Signature.

Craig W. Roddy

Name of Person Signing

Craig W. Roddy  
Signature

2-7-02

Date

Total number of pages including cover sheet, attachments, and documents: 3

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

02/26/2002 ARKED1 00000004 080300 10071076

01 FC:581

40.00 CH

**ASSIGNMENT**

Whereas, I, B. Raghava Reddy, of Stephens County, Duncan, Oklahoma and Wendell D. Riley, of Stephens County, Marlow, Oklahoma have invented HIGH TEMPERATURE VISCOSIFYING AND FLUID LOSS CONTROLLING ADDITIVES FOR WELL CEMENTS, WELL CEMENT COMPOSITIONS AND METHODS for which I have made application for Letters Patent of the United States; and

Whereas, HALLIBURTON ENERGY SERVICES, INC., a Delaware Corporation, having a place of business at 10200 Bellaire Boulevard, Houston, Texas 77072 is desirous of acquiring an interest therein;

NOW, THEREFORE, in consideration of the sum of ten dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, by these presents do sell, assign and transfer and convey unto HALLIBURTON ENERGY SERVICES, INC., its successors and assigns, the full and exclusive right, for the United States of America and its territorial possessions and for any and all foreign countries, in and to the said invention, described in the Patent Application first executed on February 6, 2002, submitted concurrently herewith, and any divisional, continuing or reissue application based on the present application preparatory to obtaining Letters Patent of the United States therefor; said invention, application and any and all Letters Patent issuing therefor to be held and enjoyed by HALLIBURTON ENERGY SERVICES, INC., for its own use and behoof, and for its legal representatives, successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me and had this assignment and sale not been made.

And I do further agree to sign all papers, make all rightful oaths and do all requisite acts for the filing of any disclaimer or for the filing and assignment of any divisional, continuing or reissue application or applications for patent based on the present application, as well as for any other U.S. or foreign application for patent which relates to the said invention.

And I do further agree to communicate to HALLIBURTON ENERGY SERVICES, INC., its successors, assign or other legal representatives, such facts relating to the invention disclosed in the present application or Letters Patent issuing thereon as may be known to me, and to testify as to such facts in any interference or other litigation.

Executed this 6th day of February, 2002, at Duncan, Stephens County, Oklahoma U.S.A.

B. Raghava Reddy  
B. Ragahava Reddy

State of Oklahoma      )  
                            ) ss  
County of Stephens    )

Before me personally appeared said B. Raghava Reddy and acknowledged the foregoing instrument to be his free act and deed this 6th day of February, 2002.

Seal

Sheila Sibley

(Notary Public)

My Commission Expires: September 13, 2004

Executed this 6th day of February, 2002, at Duncan, Stephens County, Oklahoma U.S.A.

Wendell D. Riley  
Wendell D. Riley

State of Oklahoma      )  
                            ) ss  
County of Stephens    )

Before me personally appeared said Wendell D. Riley and acknowledged the foregoing instrument to be his free act and deed this 6th day of February, 2002.

Seal

Sheila Sibley  
(Notary Public)

My Commission Expires: September 13, 2004